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EXAMINER

HORTON, YVONNE MICHELE

ART UNIT	PAPER NUMBER
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3635

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/983,043

Applicant(s)  
GEORGES ET AL.

Examiner  
YVONNE M. HORTON

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Feb 6, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-12 stand rejected under 35 U.S.C. 102(b) as being anticipated by GB 493,635. GB 493,635 discloses the use of a joist including upper (10) and lower (11) vertically spaced chords interconnected by a succession of tension and compression (12) webs extending therebetween. The tension and compression webs (12,13) each have flat ends (19) bolted (B,20) respectively to the upper (10) and lower chords (11); wherein the compression web (12) has lower flat end portions (19) attached to the lower chord (11) and bolted (B,20) indirectly to an angularly extending portion (19) of the tension web (12,13) through the lower chord (11), and an upper flat end portion (19) of the tension member (12) (where there is no member (13) attached to an undersurface of the upper chord (10) such that the compression/tension members (12,13) are attached to adjacent compression/tension (12,13) members. The applicant is reminded that how and where a force is applied determines if a member is a compressed or a tensioned member. Since no force is or has been indicated as being applied, both members (12) and (13) are considered as being compression/tension members. Regarding claim 2, although GB 493, 635 is silent with respect to whether its members have holes for receiving the bolts (B,20), it does indicate that the flat end members (19) are secured using bolts, page 3, lines 46-53, and as seen in figures 1-3. Thus, it is inherent that the flat ends (19) of the compression and tension (12,13) webs have holes formed therein for receipt of the bolts (B,20).

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In reference to claim 3, the tension and compression (12) webs are connected at nodal points (N), see the marked attachment, by a single bolt (B,20). Regarding claim 4, the tension and compression (12,13) webs include intermediate sections (I) and the flat ends (19) extend in opposite directions, see Figure 1. In reference to claim 5, the flat end (19) of the compression web (12,13) extend inwardly of a corresponding flat end (19) of a tension web (12,13) wherein the tension (12,13) web is bolted to the compression web (12,13) through the inherent holes in flat ends (19). Regarding claim 6, the compression web (12,13) is Z-shaped including an intermediate portion (I) and opposing flat ends (19). In reference to claim 7, the tension and compression (12) webs extend in opposed diagonal directions. Regarding claims 8-11, the bolts (B,20) extend through a load transferring member (LT) (and also colored red) having a portion (21, 22) that bears against the intermediate portion (I) and is offset with respect to the load transferring means (LT) and each load transferring means (LT) has an angular projection (colored blue) that bears against a portion of the intermediate portion (I), see the marked attachment. In reference to claim 12, the load transfer means (LT) appears to be an eccentric washer.

3. Claims 1-5,7-9 stand rejected under 35 U.S.C. 102(b) as being anticipated by GB 888,798. GB 888,798 discloses the use of a joist including upper and lower (1) vertically spaced chords interconnected by a succession of tension and compression (9,10) webs extending therebetween. The tension and compression (9,10) webs each have flat ends (12,14) bolted (15) respectively to the upper and lower chords (1). In regards to claim 2, the flat ends (12,14) of the compression and tension (9,10) webs have holes, page 2, line 123, formed therein for receipt of the bolts (15). In reference to claim 3, the tension and compression (9,10) webs are connected at

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nodal points by a single bolt (15). Regarding claim 4, the tension and compression (9,10) webs include intermediate sections (I) and the flat ends (12,14) extend in opposite directions, see Figure 5. In reference to claim 5, the flat end (12,14) of the compression web (9,10) extend inwardly of a corresponding flat end (12,14) of a tension web (9,10) wherein the tension (9,10) web is bolted to the compression web (9,10) through holes, page 2, line 123, in flat ends (12,14). Regarding claim 7, the tension and compression (9,10) webs extend in opposed diagonal directions. Regarding claims 8-9, the bolts (15) extend through a load transferring member (5,18).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over GB 493,635 in view of US Patent #5,003,748 to CARR. As detailed above, GB 493,635 discloses the basic claimed joist except for the use of an eccentric washer. Although GB 493,635 appears to show an eccentric washer, it is not clear if the load transfer means (LT) is actually an eccentric washer. Even though eccentric washers are old and very well known in the art for their use in transferring loads, CARR teaches that it is known in the art to provide a joist with chords (11) spaced by web members (12) and secured with eccentric washers (20, 21) as load transferring means. Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the joist of GB 493,635 with the eccentric washer of CARR in order to provide additional load support at the nodal points.

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6. Claim 13-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 493,635 in view of US Patent #4,621,475 to McCLAIN. GB 493,635 discloses the basic claimed joist except for the upper and lower chords being L-shaped. Even though GB 493,635 does not describe the use of L-shaped upper and lower chords, it does detail the use of channel shaped chord members. McCLAIN teaches that it is known in the art to form the upper (52) and lower (54) chord members from an L-shaped channel member. Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure of GB 493,635 with the L-shaped chord member of McCLAIN in order to provide the structure with an ease of inserting the bolts without having to work around an additional flange on the channel chords. Regarding claim 14, the tension and compression webs (12,13) are connected at nodal points (N), see the marked attachment, by a single bolt (B,20). In reference to claim 15, the ends (19) of the webs (12,13) are bent in opposing directions. Regarding claim 16, the tension webs (13) are substantially vertical and the compression webs (12) are diagonal.

7. Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,621,475 to McCLAIN. McCLAIN discloses a joist (50) including L-shaped upper (52) and lower (54) chords spaced by compression (24) and tension (25) webs each having flat ends (44) secured to the vertical leg (62) of the L-shaped chords (52, 54). McCLAIN discloses the basic claimed joist except for the webs being bolted to the vertical leg of the L-shaped chord.

Although the webs of McCLAIN are welded to the chords, McCLAIN discloses in column 3, line 55 that the webs may be welded "or the like". Bolting is an art recognized equivalent means for

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securing metal members together. Thus, it would have been obvious to one having ordinary skill in the art that the webs of McCLAIN could be bolted to the vertical leg of the chord.

8. Claims 17-23, 26 and 27 are and claims 24, 25, 28 and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over GB 493,635. GB 493,635 discloses the method of manufacturing a joist because the structure inherently suggests including the steps of providing a plurality of chords (10, 11) and webs (12, 13) by roll forming into shape, page 2, lines 63-70, cutting to predetermined lengths, flattening the ends (19), bending in opposing directions, assembling the webs (12, 13), and bolting the flattened ends (19) together such that adjacent first and second webs (12, 13) are bolted (B, 20) to first ends of one chord (10) and second ends are bolted (B, 20) to a third web (12, 13) and another chord (11). GB 493,635 discloses the basic claimed method except for explicitly stating that the webs (12, 13) are passed through a punch die to form holes for receipt of the bolts (B, 20). Although GB 493,635 is fairly silent with respect to whether its members have holes for receiving the bolts (B, 20), it does indicate that the flat end members (19) are secured using bolts, page 3, lines 46-53, and as seen in figures 1-3. Thus, it is inherent that the flat ends (19) of the compression and tension (12, 13) webs have holes formed therein for receipt of the bolts (B, 20). Regarding claim 18, obviously, the ends (19) of the webs (12, 13) are bent in opposing directions. In reference to claim 19, the bent portions of GB 493,635 appear to be bent at the same angle. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the angles according to whether tension or compression is needed as an obvious matter of design choice. Regarding claim 20, the end portions (19) are bent at right angles. In reference to claim 21, GB 493,635 is

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silent as to how the chord and webs are produced with respect to one another. However, it would have been well within the general skill of a worker in the art to produce the chord along side the web on two different production lines in order to save cost on production locations and to ensure that the members are manufactured to be compatible with one another. Regarding claims 22,26 and 27, GB 493,635 specifically discloses that his members are roll formed, page 2, lines 63-74, of a specific thickness weight and width. In reference to claim 23, it is inherent that the chords are cleaned after punching in order to clear away any unwanted metal. Regarding claims 24,25,28 and 29, although the structure of GB 493,635 does not explicitly disclose the steps of they are all steps painting the chords and webs, passing through infrared oven, and applying indicia, these steps are all old and very well known in the art and would have been an obvious matter of design choice. The step of using an infrared oven especially becomes apparent with the application of paint to ensure the paint is securely applied to the metal components.

### ***Response to Arguments***

9. Applicant's arguments filed 2/6/03 have been fully considered but they are not persuasive.

In regards to the applicant's argument that the previous Official Action was done in the same manner as the Action dated 4/25/05, the examiner disagrees and points out that although very similar she made a change to the reference numbers for the tension and compression members. The Office Action dated 4/25/02 summarized the tension members as being element (13); however the Official Action dated 11/8/02 summarized the tension and compression members as both being (12). This Detailed Action has again changed the reference numerals for



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the tension and compression members as both being (12) and (13) because the tendency of a member to be compressive or tension is determined by how and where a force is applied. Since there is no implication of forces both members are considered as being compressive or tensioned members.

In response to the applicant's argument that the member (13) of GB 493,635 is not connected at its upper flat end to another adjacent inclined stay. First of all, the claim does not require the stay be inclined, or at least claim 1 does not. Secondly, it is noted that the features upon which applicant relies (i.e., the vertical stay being connected at its flat end to an inclined stay) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Third, the Official Action has been modified to clarify the examiner's position in that the compression web (12) has lower flat end portions (19) attached to the lower chord (11) and bolted (B,20) indirectly to an angularly extending portion (19) of the tension web (12,13) through the lower chord (11), and an upper flat end portion (19) of the tension member (12) (where there is no member (13) attached to an undersurface of the upper chord (10) such that the compression/tension members (12,13) are attached to adjacent compression/tension (12,13) members. Last, yes the vertical stay is connected to solely to the upper chord at one end; however, the applicant is reminded that both stays (12 ) and (13) are compressive and tension members. In this, compression (12,13) and tension webs (12,13) are connected either directly (two angled stays (12)) or indirectly ( an angled stay (12) and a vertical stay (13)) to one another through the upper and lower chords.

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Regarding the applicant's argument that GB 493,635 does not teach the use of holes, the examiner agrees and has modified her rejection to reflect the fact that although GB 493,635 is silent in this regard, it does indicate that the flat end members (19) are secured using bolts, page 3, lines 46-53, and as seen in figures 1-3. Thus, it is inherent that the flat ends (19) of the compression and tension (12,13) webs have holes formed therein for receipt of the bolts (B,20). In as much, the formation of holes for the reception of bolts is old and very well known in the art.

In response to the applicant's arguments to claim 13 and US #4,621,475, claim 13 has been modified to clearly set fourth the examiner's position.

Regarding the applicant's argument to US Patent #5,003,748 to CARR, the claim does not require the load transfer member to have a portion that is eccentric and bears against the intermediate section, but rather, the claim requires an eccentric washer. In the modified rejection above, GB 493,635 discloses what appears to be a washer (colored red) having an eccentric portion (colored blue) that bears against the intermediate member (I), see the marked attachment.

In reference to the applicant's argument that GB 888,798 does not teach the use of a joist, but rather the use of a vertical pole, the examiner agrees; however, all of the components are particular to a lattice structure and although "used" as a light pole, GB 888,798 is a lattice structure that comprises all of the elements of the claimed invention. The applicant is further reminded that, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use

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must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

In regards to the applicant's argument that the examiner is not aware of the structural differences of the instant application and the prior art, the examiner is very much aware of the structural differences in the prior art cited and the instant application; however, the claims remain readable on the prior art of record.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909.

Yvonne M. Horton  
Art Unit 3635  
April 22, 2003

